Profile

Our background
GIBB is a leading multi-disciplinary engineering consulting firm based in South Africa with 67% Black ownership. The firm has a strong African orientation with a wide geographical footprint on the continent.

The firm has been operating since 1956 and has proven capabilities in delivering world-class projects of any magnitude. GIBB prides itself on delivering high quality projects underpinned by an independently certified ISO 9001 quality system since 1999.

GIBB recognises and appreciates the potential offered by the African continent. Accordingly, GIBB has, over the years, developed an in-depth understanding of the challenges of developing infrastructure in Africa. This has contributed to the firm's position as the partner of choice for the private sector, state owned enterprises (SOEs) and governments who seek knowledgeable people, with proven experience and the expertise to respond to the numerous infrastructure demands and needs of the continent.

Our experience
GIBB has executed various and complex projects across various sectors and engineering disciplines across many African countries. The firm remains committed to achieving excellence in every project, and is proud to be the firm of choice for the continent's greatest engineers, who are leading experts in their fields. GIBB's technical expertise is enhanced through our relationships with various global partners.

GIBB is conscious of the environment in which it operates in and continuously seeks ways to offer sustainable solutions on its projects.

The winning combination of top talent, in-depth industry knowledge, well-earned reputation for excellence and commitment to timeous, within budget delivery ensures that the client is guaranteed ultimate success of every project. GIBB's long track record of industry awards is a testament of the recognition by our industry peers.

Our service offering
In addition to its traditional service offerings and in line with GIBB's objectives of providing comprehensive solutions to clients, SVA International, one of Africa's leading architectural practices has joined forces with the GIBB Group of firms. This has expanded the GIBB offering beyond engineering, to architecture and urban planning.

With offices in all major cities in South Africa and the rest of Africa, SVA's areas of expertise include retail, hospitality, commercial, health, education and residential.

Our project exposure
The GIBB Group of firms operates across the entire Africa continent and has recently undertaken projects in:
Angola, Botswana, Ghana, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Swaziland, Tanzania, Uganda, Cameroon, DRC, Mauritius, Ethiopia, Senegal, Kenya, Djibouti, Gambia, Zambia and Zimbabwe.

Our markets
The markets GIBB operates in are:
• Transportation
• Freight and Logistics
• Power and Energy
• Water
• Sanitation
• Housing and Community Infrastructure
• Property Developments in retail, hospitality, commercial and residential
• Geotechnical and Tunnelling
• Natural and Built Environment
• Mining Infrastructure
• Health Infrastructure
• Education Facilities
Dams, Hydropower and Underground Works

GIBB’s Dams, Hydropower and Underground Works Sector comprises of highly qualified professionals who offer their services across Africa. Facilitating efficient and cost-effective solutions to complex engineering challenges in the diverse realms of heavy engineering. Our reputation is built upon technical excellence combined with total commitment to the highest standards of service, partnering with clients through each stage of project development while offering a fully comprehensive service.

Dams, Hydropower and Underground Works capabilities:

- Dam engineering
- Hydrology flood route
- Seismic studies
- Hydropower plants and pumped storage schemes
- Geology and geotechnics
- Underground and tunnel engineering
- Water resources and hydrological studies
- Model studies
- Management and programming of multi-disciplinary projects
- Water engineering
- Due diligence
- Project finance
- Master Planning and feasibility studies
- Environmental services
- Construction supervision
- Heavy structural engineering
- Geographical Information Systems
- Power transmission
- Topographic modelling
- Value engineering
- Project costing and financial modelling
- Contract documentation and administration
- Economic and financial evaluation
- Risk assessment
Projects demonstrating GIBB’s Dams, Hydropower and Underground Works

**Ingula Pumped Storage Scheme**
- **CLIENT NAME**: Eskom
- **LOCATION**: Ladysmith, KwaZulu-Natal, South Africa
- **PROJECT VALUE**: R25 billion ($3.5 billion)

**GIBB responsibilities**
Design and on-site design monitoring of a new 1 344MW pumped storage scheme. Access roads, 50m high CFRD upper dam, 40m high RCC lower dam, 2 x 6.6m dia penstocks under 450m head, 4 x 333MW Francis turbines, 9.0m dia tailrace, underground power-station housed in a 150m x 25m main cavern and 160m x 15m Transformer Hall.

**Metolong Dam**
- **CLIENT NAME**: Metolong Authority
- **LOCATION**: Lesotho
- **PROJECT VALUE**: $100 million

**GIBB responsibilities**
Detailed design and Site Supervision of 83m high Roller Compacted Concrete (RCC) gravity dam with a storage capacity of 63.7 million m³ and raw water pump station with a capacity of 1.2m³/s with provisions made to increase to 2.4m³/s.

**De Hoop Dam**
- **CLIENT NAME**: Department of Water Affairs
- **LOCATION**: South Africa
- **PROJECT VALUE**: R3 billion

**GIBB responsibilities**
Project management, construction supervision, contract administration and cost control of all the works for the 1 015m in length 81m high Roller Compacted Concrete (RCC) Dam with a storage capacity of 347.6 million m³ covering a surface area of approximately 1 690 ha.

**Gauteng Rapid Rail Link Tunnel**
- **CLIENT NAME**: Gautrain
- **LOCATION**: Gauteng, South Africa
- **PROJECT VALUE**: R30 billion

**GIBB responsibilities**
Design review and specification, support; site supervision team for 15 km of soft and hard rock tunnelling, including three underground stations, earthworks, bridges, viaducts, stations and the depot EM&M, signals; telecoms, safety; security, noise and vibration.
PROJECT NAME
Kabompo Gorge Hydropower Project
CLIENT NAME
Copperbelt Energy Corporation (CEC)
LOCATION
Zambia
PROJECT VALUE
$150 million

GIBB responsibilities
Feasibility study, EPC tender design, evaluation and appointment as owners engineers for the 40MW scheme 54m high Roller Compacted Concrete (RCC) dam.

PROJECT NAME
Luapula Hydropower Cascade
CLIENT NAME
Copperbelt Energy Corporation
LOCATION
Zambia/DRC
PROJECT VALUE
Confidential

GIBB responsibilities
Owners engineers for the master plan of the potential 900MW total capacity which includes five dam structures ranging in height from 20m to 70m along the Luapula River.

PROJECT NAME
Shiroro Hydropower Project
CLIENT NAME
North South Power Company
LOCATION
Niger State, Nigeria
PROJECT VALUE
Confidential

GIBB responsibilities
Detailed condition assessment of the 600MW plant and includes a 115m high CFRD dam with a crest length of 700m.

PROJECT NAME
Thune Dam
CLIENT NAME
Government of Botswana’s Department of Water Affairs, Division of Hydrology & Water Resources
LOCATION
Botswana
PROJECT VALUE
$129 million

GIBB responsibilities
Owners engineers for the 1 600m long, 35m earth embankment dam. This includes project management, civil engineering, waterworks and pipeline design, foundation engineering, dam engineering, cost estimation, scheme documentation, construction supervision and administration.
Dams, Hydropower and Underground Works projects

Bedford Dam, South Africa

Braamhoek Dam, South Africa

Maguga Dam, Swaziland

Kariba Dam, Zimbabwe/Zambia

Roseires Dam, Sudan

Monontsa Pumped Storage Scheme

Lesotho Highlands Water Project, Lesotho

Katse Dam, Lesotho

Department of Water Affairs, South Africa

Al Khabour Dam and Irrigation Project, Syria

Koudait Rosfa Dam, Algeria

Tyhefu Irrigation Scheme, South Africa
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